

REMARKS

In view of the following remarks, reconsideration and allowance of this patent application is earnestly solicited.

Claims 1-8, 10-22 and 24-28 are pending in this application. Claims 9 and 23 have been withdrawn from consideration. Claims 5-8, 10-14, 19-22 and 24-28 have been allowed. Claims 1-4 and 15-18 stand rejected. No new matter has been introduced.

In the Office Action, the Examiner rejected independent claims 1, 15 and 18 and dependent claims 2-4, 16 and 17 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,714,271 (“Buma”). The Examiner also rejected independent claims 1 and 15 under 35 U.S.C. §102(e) as being anticipated by DE 102 03 075 (“Huster”). Applicants respectfully traverse the foregoing claim rejections for the reasons set forth hereinafter.

As previously submitted and as set forth in detail in the present patent application, Applicants’ invention is directed to embodiments of a new vehicle air-suspension system, especially an air-suspension system designed as a partly closed system, and a method for operating the system. The air-suspension system includes at least one compressed-air delivery device, a plurality of air-suspension bellows and valves constructed and arranged for controlling the filling of one, several or all air-suspension bellows with compressed air discharged by the compressed-air delivery device. The novel method for operating the system provides for automatic control of the effective air delivery capacity of the compressed-air delivery device as a function of the state defined by the arrangement of the valves. *See paragraphs [0146] - [0155].* By way of example, in accordance with an advantageous embodiment of the present invention, normal delivery capacity is used for delivery of compressed air into three or four bellows, while reduced

delivery capacity is used for delivery of compressed air into fewer than three bellows. The method of the present invention also enables adjustment of the effective delivery capacity while the bellows are being filled (i.e., creating a changeover from normal delivery capacity to reduced delivery capacity if certain measured criteria within the system are met). As a result, the method and system according to the present invention avoid an undesirably large pressure rise on the pressure-outlet side of the compressed-air delivery device.

The Buma patent cited by the Examiner describes embodiments of a suspension controller for altering suspension characteristics responsive to road surface conditions and vehicle running speed. The suspension controller includes a vehicle height detection mechanism for providing a vehicle height signal indicative of a distance between a body and a wheel of a vehicle. The controller also includes a vehicle speed detection mechanism for providing a vehicle speed signal. A first signaling mechanism provides a first soft signal commanding alteration of the suspension characteristic to “soft” in case the detected vehicle height exceeds a predetermined value. A second signaling mechanism provides a second “soft” and a first “hard” signal in response to the detected vehicle speed. A preference mechanism provides a preference for a signal from the first signaling mechanism over that from the second signaling mechanism to a mechanism for properly altering the suspension characteristic of the vehicle.

In the Office Action, the Examiner asserts, without noting any particular section of Buma for support, that Buma discloses the step of and means for automatically controlling the effective delivery capacity of the compress-air delivery device as a function of a state of the plurality of states defined by the arrangement of the valves. Applicants

respectfully submit that Buma discloses only a common air suspension system with a method for controlling the suspension characteristics of the vehicle based on the road surface and vehicle speed, but nowhere teaches or suggests adjusting the effective delivery capacity of a compressed-air delivery device, let alone automatically controlling the effective delivery capacity of the compressed-air delivery device as a function of a state of the plurality of states defined by the arrangement of the valves.

The rejection of dependent claims 2 and 16, respectfully, appears to conflate the claimed step of and means for controlling at least one of speed and rpm of the compressed-air delivery device (*see* paragraphs [0137] and [0144]) with Buma's disclosure of controlling a compressed air feed and discharge system (10) based on the speed of the vehicle (*see* Buma at 7:21-33). Applicants submit that Buma nowhere teaches or suggests controlling at least one of speed and rpm of the compressed-air delivery device as required by dependent claims 2 and 16.

The Huster reference cited by the Examiner describes embodiments of a closed pneumatic chassis regulation system. As an initial matter, the Examiner's reliance upon 35 U.S.C. §102(e) as the statutory basis for rejecting claims 1 and 15 under Huster is misplaced. §102(e) concerns published applications filed in the U.S. -- Huster is a German reference with no U.S. counterpart. Applicants submit that the Examiner has failed to present a prime facie case of anticipation on this basis alone. Regardless of the foregoing, however, Huster does not anticipate or otherwise render unpatentable claims 1 and 15.

The closed regulation system of Huster is divided into a high pressure line and a low pressure line. The compressed-air delivery device and bellows are connected to the high pressure line. A single compressed air reservoir is connected to the low pressure

line. A circulation valve is needed to connect the high pressure line to the low pressure line in order to fill the compressed air reservoir with compressed air from the delivery device. However, this connection can be made only if the bellows do not require compressed air from the delivery device. In other words, the delivery device cannot simultaneously supply compressed air to the bellows and the compressed air reservoir.

The system of Huster has the same delivery capacity for the bellows as it does for the compressed air reservoir. The valve arrangement of Huster determines which components are supplied with compressed air from the delivery device. This is in stark contrast to the present invention which involves adjusting effective delivery capacity during filling of the bellows. Huster nowhere teaches or suggests automatically controlling the effective delivery capacity of the compressed-air delivery device as a function of a state of the plurality of states defined by the arrangement of the valves as required by claims 1 and 15 of the present application.

Accordingly, independent claims 1, 15 and 18 of the present application recite features, process steps and structure nowhere found in Buma or Huster, and, thus, Buma and Huster cannot anticipate claims 1, 15 and 18.

The Federal Circuit has instructed that anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *See W.L. Gore & Assocs. v. Garlock, Inc.*, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 841 (1984); *see also Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984) (requiring that the prior art reference disclose each element of the claimed invention arranged as in the claim). Considering that the method and system of the present invention as claimed in independent claims 1, 15 and 18

differ structurally, operationally and functionally from the method and system disclosed in Buma and Huster, as discussed above, it is respectfully submitted that independent claims 1, 15 and 18 are not anticipated by and are patentable over both Buma and Huster. Notice to this effect is earnestly solicited.

It is further submitted that claims 2-4, 16 and 17, which variously depend from independent claims 1 and 15, are allowable for the same reasons articulated above with respect to the allowability of claims 1 and 15, as well as for the additional steps, features and structure recited therein. Notice to this effect is also respectfully requested.

The Examiner rejected dependent claims 2 and 16 under 35 U.S.C. §103(a) as being unpatentable over Huster in view of DE 100 55 108 (“Roemer”). Applicants respectfully traverse the foregoing claim rejections for the reasons set forth hereinafter.

The Roemer reference, cited in combination with the Huster reference by the Examiner against claims 2 and 16, does not cure the severe deficiencies of Huster. Roemer, which is discussed in the Background of the Invention section of the present application, describes embodiments of a conventional air suspension system for a vehicle with at least one air spring per wheel, one pump, at least one accumulator and one circuit arrangement for connecting the elements, wherein the pressure side of the pump is connected to the accumulator or air spring. As with Huster, Roemer nowhere teaches or suggests automatically controlling the effective delivery capacity of the compressed-air delivery device as a function of a state of the plurality of states defined by the arrangement of the valves.

The Examiner relies on Roemer for its disclosure of a pump (20) for controlling at least one of speed and rpm of a compressed-air delivery device within an air suspension system for a vehicle. Again, there appears to be some confusion between the claimed step of and means for controlling at least one of speed and rpm of the compressed-air delivery device (*see* paragraphs [0137] and [0144]) and a cited reference -- here Roemer's disclosure of controlling a pump to draw in air from atmosphere to fill air springs based on the pressure within the vehicle air suspension system (*see* Roemer at 4:16-62). Applicants respectfully submit that Roemer does not teach or suggest controlling at least one of speed and rpm of the compressed-air delivery device as required by dependent claims 2 and 16.

Accordingly, claims 2 and 16 of the present application recite features and structures nowhere found in either of the Huster or Roemer references, and, thus, these references, alone or in combination, cannot yield, teach or suggest the present claimed invention.

On the basis of the foregoing remarks, Applicants respectfully submit that this application is in condition for immediate allowance. Notice to this effect is earnestly solicited.

The Examiner is invited to contact Applicants' undersigned attorneys at the telephone number set forth below if it will advance the prosecution of this case.

No fee is believed due with this Reply. Please charge any fee deficiency to
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Respectfully submitted,


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